

the analyzer, and a processing unit (capable of calculating the brightness and the intensity of a plurality of points of the said surface from pixels of at least two images of the said surface.

16. (New) Apparatus designed to examine a surface comprising a polarisation analyser element or analyser element or analyser placed in the path of a light beam reflected by the said surface, a camera for taking digital images placed in the path of the beam reflected by the said surface downstream of the analyser, and a processing unit capable of calculating the brightness and the intensity of plurality of points of the said surface from pixels of at least two images of the said surface.

B2 17. (New) Apparatus according to Claim 15 or 16, characterized in that it comprises a source of polarized light (capable of) emitting a beam incident on the said surface to be examined.

18. (New) Apparatus according to Claim 17, characterized in that the light emanating from the said source is substantially isotropic.

19. (New) Apparatus according to Claim 15 or 16, characterized in that the light emanating from the said source is substantially white.

20. (New) Apparatus to Claim 15 or 16, characterized in that the spectrum of the light emanating from the said source is substantially the same as the solar spectrum.

21. (New) Apparatus according to Claim 15 or 16, characterized in that the analyser comprises a means for transmitting the crossed polarization and a means for transmitting the parallel polarization, the said transmission means being alternatively active.

22. (New) Apparatus according to Claim 21, characterized in that the analyser is rotating.

23. (New) Apparatus according to Claim 22, characterized in that the analyser comprises an electrical switching means.